



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,744	02/20/2002	Minoru Hidaka	HITA.0159	3446
38327	7590	04/20/2006	EXAMINER	
REED SMITH LLP 3110 FAIRVIEW PARK DRIVE, SUITE 1400 FALLS CHURCH, VA 22042			HALIYUR, VENKATESH N	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/077,744	HIDAKA ET AL.	
	Examiner	Art Unit	
	Venkatesh Haliyur	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 02/03/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 02/03/2006 has been considered but is ineffective to overcome the Kametani reference. Please see the rejections below.
2. Claims 1-13 are pending in this application.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Kametani [US Pat: 6,839,346].

Regarding claim 1,7, Kametani disclosed in the invention of "Packet Switching Apparatus with High Speed Routing Function" a packet processing method, comprising the steps of providing a packet processing apparatus (**Fig 2**) that incorporates a processor selector (**item 11 of Fig 2**) for extracting identification information (**source and destination IP addresses**) that denotes a characteristic of a data flow (**type of processing to be performed like encryption or decryption**) composed of an input

Art Unit: 2616

packet from said packet. A processing selecting table (**item 17 of Figs 2-3**) for holding a pair of data items (**source and destination IP addresses**) that are identification information and a processing to be performed for said packet in advance (**Fig 3**), a table searcher (**item 16 of Fig 2**) for searching information (**type of processing**) in said processing selecting table according to a search key, which is identification information extracted by said processor selector, a packet processor (**item 14 of Fig 2**) for processing said packet according to a result of searching in said table, and a port selector (**output port selection, Fig 3,**) for sending said processed packet; extracting identification information that denotes a characteristic of a data flow composed of an input packet from the header information of said packet (**item 306 of Fig 4**), wherein said packet processor is one of a plurality of types of packet processors (**item 20 of Fig 2**), each being independent (**perform either encapsulation or security encryption**) for a processing type to be performed for packets; and selecting a processing to be performed for the data of a packet in a packet flow for each input packet flow [**Figs 1-7, col 2, lines 52-67, cols 3-6, lines 1-67, col 7, lines 18-67, cols 8-9, lines 1-67, col 10, lines 1-56, abstract**].

Regarding claim 2-3, Kametani disclosed that the packet processing is selected according to an input line (**network interface**) to which said packet flow is inputted and according to an identifier (**source and destination IP addresses**) included in said packet data (**col 3, lines 2-10,col 8,lines 64-67,col 9,lines 1-55**).

Regarding claim 4-5, Kametani disclosed that the packet processing is selected by referring to a table (**Fig 3**) where an input line to which said packet flow is inputted

Art Unit: 2616

and a processing to be selected are corresponded to each other and identifier included in said packet data and a processing to be selected are corresponded to each other **(search key, routing result and security data as in Fig 3) (Figs 2-4, column 3, lines 15-67, column 4, lines 1-5, column 6, lines 1-26, column 7, lines 22-63, col 8, lines 64-67, col 9, lines 1-55).**

Regarding claim 6, Kametani disclosed that the packet processing to be performed for packet data is encapsulation, decapsulation, encryption, decryption **(col 3, lines 41-67, col 6, lines 11-26, col 11, lines 24-41).**

Regarding claim 8-9, Kametani disclosed that the identification information **(source and destination IP addresses)** that denotes a characteristic of a data flow (type of processing) composed of an input packet is extracted from the header information of said packet and that the identification information that denotes a characteristic of said data flow at least one of a source address and a destination address **(Figs 2-3, col 7, lines 46-63).**

Regarding claim 10, Kametani disclosed that the packet processor is one of a plurality of types of packet processors, each being independent for a processing type to be performed for packets that is selected based on the **(Fig 2, col 3, lines 41-67, col 4, lines 54-67, col 5, lines 1-10, col 14, lines 30-67, col 5, lines 1-49).**

Regarding claim 11, Kametani disclosed that the packet processing apparatus **(Fig 2)**, comprising a processor selector **(item 11 of Fig 2)** for deciding the source of an input packet, a processing selecting table **(based on search key in Fig 3) (item 17 of Fig 2)** for holding a pair of data items that are identification information **(source and**

Art Unit: 2616

destination IP addresses) and a processing to be performed for said packet in advance, a table searcher (**item 16 of Fig 2**) for searching information (**encryption**) in said processing selecting table according to a search key, which is a source of said packet decided by said processor selector, a packet processor (**item 14 of Fig 2**) for processing said packet according to a result of searching in said table, and a port selector (**Fig 3**) for sending said processed packet (**item 20 of Fig 2**) [**Fig 1-7, col 2, lines 52-67, cols 3-6, lines 1-67, col 7, lines 18-67, cols 8-9, lines 1-67, col 10, lines 1-56, abstract**].

Regarding claims 12,13, Kametani disclosed that the packet processing an input line to which said packet is inputted is decided as the source of said packet and also decided according to the header information of said packet (**source and destination IP addresses**) (**Fig 2, col 7, lines 46-63, col 9, lines 5-55**).

Response to Arguments

4. Applicant's argument, see Remarks filed on 02/03/2006 have been fully considered but they are not persuasive.

5. Examiner respectfully traverses the arguments as follows,

Claims 1,7 pp 5-6 of remarks: The prior art of reference, Kametani discloses the main features and the steps of providing a packet processing apparatus that incorporates a processor selector for extracting identification information that

denotes a characteristic of a data flow composed of an input packet from said packet, a processing selecting table for holding a pair of data items that are identification information and a processing to be performed for said packet in advance, a table searcher for searching information in said processing selecting table according to a search key. Which is identification information extracted by said processor selector, a packet processor for processing said packet according to a result of searching in said table, and a port selector for sending said processed packet, extracting identification information that denotes a characteristic of a data flow composed of an input packet from the header information of said packet, wherein said packet processor is one of a plurality of types of packet processors, each being independent for a processing type to be performed for packets; and when selecting a processing to be performed for the data of a packet in a packet flow for each input packet flow (**Figs 1-7, col 2, lines 52-67, cols 3-6, lines 1-67, col 7, lines 18-67, cols 8-9, lines 1-67, col 10, lines 1-56, abstract**)

Claims 11, pp 6-7 of remarks: The prior art of reference, Kametani discloses a packet processing apparatus, comprising: a processor selector for deciding the source of an input packet, a processing selecting table for holding a pair of data items that are identification information and a processing to be performed for said packet in advance, a table searcher for searching information in said processing selecting table according to a search key, which is a source of said packet decided by said processor selector, a packet processor for processing said

packet according to a result of searching in said table, and a port selector for sending said processed packet. Kametani further disclosed selectively transferring the packets to one of the plurality of the lower layer processors (items 19 & 20 of Fig 2, col 3, lines 63-67, col 4, lines 1-10, col 9, lines 29-55) and each of the plurality of packet processor can perform different types of processing to improve throughput (col 14, lines 30-65, col 15, lines 1-50).

Regarding applicant's argument that Kametani does not disclose the applicant's invention as stated in first paragraph of page 7 of remarks " the processor selector categorizes the input packets and selects a processor for each category", examiner contends that the applicant fails to show how the packet is distributed to a particular processor of that category without processing every packet that is received at a packet process in the claimed subject matter.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2616

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

7. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached @ (571)-272-3139. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Application/Control Number: 10/077,744

Page 9

Art Unit: 2616

Venkatesh Haliyur

Patent Examiner

WH

04/17/06

ajp

Ajit Patel

Primary Examiner